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A Unit Plan for High School Psychology

Stress and Health Promotion

TOPSS

American Psychological Association

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CONTENT OUTLINE

Lesson I. Overview of Stress

I. The Concept of Stress

A. Stress—Stress is the physical and psychological response to events, called stressors, that challenge a person's normal functioning (homeostasis); everyone has stress—it is a normal part of life.

B. Stressor—A stressor is any physical or psychological challenge that threatens homeostasis; stressors can be unique to an individual.

1. *Physical stressors*—Examples include injury, physical exertion, noise, overcrowding, or excessive heat or cold.
2. *Psychological stressors*—Examples include challenges such as interpersonal conflict, isolation, traumatic life events, time-pressured tasks, peer pressure, expectations of others, or high standards for achievement.

II. Appraisal of Stress

All events are processed within the corticolimbic system, which is responsible for the appraisal of threat and the processing of emotions.

A. Primary appraisal—This is determining whether an event is a threat, and the magnitude of that threat.

B. Secondary appraisal—This is evaluating ways in which to cope with the stressor.

III. The Stress Response

The stress response consists of both psychological and physiological components.

A. Behavioral response—A behavioral response is any action taken on the environment, for example leaving a dangerous situation, fighting back, or using a coping skill; people react differently to stressors depending on both genetics and life experiences.

B. Physiological response—A physiological response is an alteration in physiological functioning to prepare for "flight or fight."

C. Behavioral and physiological responses may also be accompanied by negative emotional states, such as frustration, fear, anxiety, sense of pressure; "eustress" tends to be accompanied by a sense of happiness, joy, exuberance.

IV. Types of Stressors

A. Psychological conflict—This is when a choice is required between actions or goals that are perceived as incompatible. Types of conflict:

1. *Approach-approach*—This is when a person must choose between one of two attractive goals. Example: You can either go to a ball game or spend time with a friend who is usually busy, but you cannot do both.
2. *Avoidance-avoidance*—This is when a person must choose between two unattractive options, or the "lesser of two evils." Example: You need to make a choice between cleaning your room and studying for your psychology exam.

3. *Approach-avoidance*—This is when a person must choose a goal that has both attractive and unattractive features. Examples: You want to purchase a stereo system that is great fun to have, but requires extra work hours to pay for; you want to go along with your friends to a particular movie, but you know that your parents disapprove.

4. *Double approach-avoidance*—This is when a person must choose between two alternatives, both of which have positive and negative features. Example: When you need to choose between two colleges that you like, but both have negative features as well.

B. Everyday hassles—These are minor everyday occurrences that can be distressing, frustrating, and irritating (e.g., traffic, disagreements, time demands).

C. Life changes—These are personal changes in a person's life that require adaptation/adjustment (e.g., rejection by friend, vacation, death of a parent, retirement, new job, marriage).

D. Catastrophes—These are unpredictable, large-scale events, such as natural disasters or devastations (e.g., tsunami, tornado).

E. Poverty and inequality—This is a low economic status.

F. Discrimination—This is prejudice and perceived unfairness.

G. Adjustment to a new culture—This is when immigrants and sojourners are adjusting to life in a new culture.

V. Chronic Stress

Chronic stress results in prolonged activation of the stress response.

A. Chronic stress can lead to negative mood states, such as depression and anxiety, which in turn then can affect how a person appraises new events; the person often appraises the new events as more negative, and, thus, a vicious cycle begins.

B. Chronic stress affects the body through making the immune system less efficient and influencing the functioning of the cardiovascular system.

VI. Stress and Health

A. Post-traumatic stress disorder (PTSD)—PTSD is a psychiatric disorder in which people who have been subjected to trauma (either natural or manmade) experience long-lasting symptoms such as anxiety, depression, or flashbacks.

B. Stress is related to health in other ways as well.

1. Stress is a risk factor for the development of disease (e.g., heart disease).
2. Stress may aggravate an existing disease or interfere with recovery (e.g., migraine headaches, asthma, hypertension, wound repair).
3. Stress may reduce compliance with treatment for disease (taking medication, following diets).

Activity 1

Name That Stressor

Notes

Activity 1

Name That Stressor

Concept

The following activity should encourage students to generate a list of stressors affecting their lives. Students will also learn the meaning of terms such as *anxiety, frustration,* and *conflict situations.*

Instructions

1. Put students in groups of three to five members.
2. Have students brainstorm a list of five agreed-upon stressors that affect their lives. Allow 10 minutes for this portion of the activity.
3. Have students come together as a class and develop a list of the top 10 stressors affecting their lives from the smaller group lists. Write this list on the board.
4. Apply terms below to the list. Students should be able to identify these stressors as anxieties, frustrations, or conflict situations.
    a. Frustration: An obstacle that prevents attainment of a goal
    b. Anxiety: A vague, generalized apprehension or feeling that one is in danger
    c. Conflict: When choice is required between actions or goals that are perceived as incompatible (approach-approach, avoidance-avoidance, approach-avoidance, double approach-avoidance)
5. Ask students to brainstorm coping techniques. Assess the suggestions.

Discussion

The discussion should lead students to an awareness of stressors in their lives, what causes these stressors, and coping techniques to consider.

Adapted From

Tubesing, N. L., & Tubesing D. A. (1983). *Structured exercises in stress management: A Whole Person™ handbook for trainers, educators and group leaders* (Vol. 1). Duluth: Whole Person Press.

Lesson II. Physiological Reactions to Stressors

I. Basic Physiology of the Stress Response

A. Events are processed in the corticolimbic system. Sensory information related to the event is processed in this system, which includes multiple brain structures that conduct the appraisal process.

B. When a threat is perceived, a message is sent to the peripheral nervous system to get prepared for movement.

C. A message is also sent to the hypothalamus, which coordinates the nervous system and controls the autonomic nervous system. As part of the autonomic nervous system, the sympathetic nervous system increases activation of bodily systems that prepare the body to react either defensively or offensively (fight or flight).

D. The hypothalamus also communicates with the endocrine system, which, through a complex process, produces two main functions during stress, an adrenocortical response and an adrenomedullary response.

1. The adrenocortical response releases cortisol, a hormone always present, but whose levels vary because of time of day and current stressors. Cortisol increases sympathetic nervous system activity, releases stored fats for energy, and suppresses immune function.
2. The adrenomedullary response releases epinephrine (adrenaline), which stimulates heart muscles and increases heart rate and oxygen consumption so as to prepare the body to respond.

II. Models of Stress

A. Walter Cannon (physiologist) was responsible for the following:

1. He introduced the term *stress*.
2. He distinguished between short-term and long-term stressors.
3. He noted that the body is better prepared to handle episodic stressors rather than chronic stressors.

B. Hans Selye was responsible for the following:

1. He studied animal and human reactions to various stressors.
2. He identified the body's response to stress—*general adaptation syndrome.*
3. He described three phases of the general adaptation syndrome (GAS) as follows:
   - *(a) Alarm*—Sympathetic nervous system mobilizes resources (e.g., increased heart rate).
   - *(b) Resistance*—Body continues to expend hormones that keep system elevated.
   - *(c) Exhaustion*—Body becomes exhausted; resources depleted.

C. Theories of emotional and physiological responses to stress include:

1. James-Lange theory—Body responds to stress and feelings of fear follow.

2. Cannon-Bard theory—Physiological response and emotion occur simultaneously.

III. Chronic Stress

A. Hormones released during the stress response have negative effects when released continuously.

1. Cortisol suppresses immune function and can disrupt sleep, which if it occurs over a long time can result in susceptibility to illness.
2. Epinephrine can increase risk factors for cardiovascular disease, sleep problems.

B. During the appraisal process, emotions are generated that can influence mood. Chronic stress can lead to negative mood states that in turn can affect how events are appraised.

IV. Stress, Emotion, and Heart Disease

A. Heart disease is the leading cause of death in the United States today.

B. Early research found a relationship between stress and heart disease (Friedman & Rosenman, 1959).

1. Friedman and Rosenman (1959) monitored the cholesterol levels of tax accountants just before and up to the tax deadline (April 15).
2. They found cholesterol levels increased dramatically before April 15 and returned to normal by June. Research was limited because it only included White men.

C. Early research revealed the relationship between Type A personality and heart attacks (Friedman & Rosenman, 1974).

1. *Type A*—This is a hard driving, aggressive, impatient personality.
2. *Type B*—This is a laid back personality; usually easy going.

The research found that Type A men were more likely to have heart attacks.

The sympathetic nervous system of Type A individuals works overtime; the increased hormone secretion increases plaques or cholesterol deposits.

D. Newer research has identified *hostility* as the key factor in Type A personalities that contributes to heart disease.

E. Depression affects recovery from heart attacks, and is a risk factor for poor outcome independent of severity of heart disease.

V. Stress and the Immune System

A. *Psychoneuroimmunology*—This word was coined by psychologist Robert Ader, who began the study of the interaction of psychological and physiological processes that affect the body's ability to defend itself against disease.

B. *Immune System*—This is the body's first internal line of defense.

C. *Leukocytes*—These immune system cells, especially white blood cells, are formed in bone marrow and serve as the body's mobile defense units.

D. The perception of stress leads to the suppression of the immune system.

E. The relationship between stress and the immune system is especially important in persons who are HIV positive but do not yet have AIDS.

F. Stress is associated with susceptibility to the common cold.

G. Stress is associated with slower wound healing.

Activity 2.1

Biofeedback on a Budget

Activity 2.2

The Autonomic Nervous System

Activity 2.3

Step on the Gas

Notes

Notes

Activity 2.1

Biofeedback on a Budget

Margaret S. Martin
Medical University of South Carolina

In this activity the instructor will need to order Biodots before asking the class to keep a 3-day journal recording emotional states. No other materials are needed, and any size class can participate. As always in journal-writing assignments, students should be cautioned about inappropriate personal disclosures.

Concept

Biodots are temperature-sensitive, small, round pieces of plastic that can be affixed to the "webbing" between the left thumb and forefinger. They have an adhesive backing and will stay in place for a few hours. As the temperature of the skin goes up, the Biodot changes color. Biodots can be used to demonstrate biofeedback (on a limited budget), perform a variety of experiments, and show the relation between emotion and color. It is assumed that the temperature of the skin on the extremities changes in response to the emotional state. A journal may be kept noting color and thoughts at random times during the day.

Materials

You will need Biodots, which can be ordered from Whole Person Associates, Inc., 210 West Michigan Street, Duluth, MN 55802-1908. You can order by phone (1-800-247-6789) or by fax (218-727-0505). Order forms are available through http://www.wholeperson.com/wpa/dp/bio/bio.htm.

Instructions

The following instructions to students may be used: "Keep a 3-day journal of your observations while wearing a Biodot. At 10 random times during the day, note the color of your Biodot, your activities, and your thoughts. Bring your journals to class at the end of this period."

Because some students may include personal, sensitive information about themselves, I suggest that the instructor not read student journals or caution students about including inappropriate or very personal data.

Discussion

A general class discussion might follow small group discussions of no more than three or four students in each small group. It is preferable to allow students to select the groups they want to be in for this activity.

The following questions may be used to stimulate student thinking: Did your Biodot show any consistency between color and activity? Between color and thoughts? What color did your Biodot turn prior to a test, speech, or some other anxiety-producing activity? In what situations did your Biodot show the “relaxed state”?

Suggested Reading

ACCTion Consortium. (1978). *Biofeedback, Biodots, and stress: Teacher’s guide.* Hampton, IA: Author.

Davis, M., McKay, M., & Eshelman, E. (1980). *The relaxation and stress reduction workbook.* Richmond, CA: New Harbinger.

Restak, R. (1984). *The brain.* New York: Bantam Books.

Spielberger, C. D., & Sarason, I. G. (1985). *Stress and anxiety* (Vol. 9). Washington, DC: Hemisphere.

Wortman, C. B., & Loftus, E. F. (1988). *Psychology.* New York: Knopf.

Adapted From

Makosky, V. P., Sileo, C. C., Whittemore, L. G., Landry, C., & Skutley, M. L. (1990). *Activities handbook for the teaching of psychology (Vol. 3).* Washington, DC: American Psychological Association.

Activity 2.2

The Autonomic Nervous System

Allan L. LaVoie
Davis and Elkins College

This activity presents an illustration of the role the autonomic nervous system plays in emotional response. No prior knowledge of psychology is necessary, and only minimal preparation is required. A stopwatch or timepiece with a second hand is needed. Several variations of the activity are suggested in which the physiological response to contrasting emotional states can be examined. One demonstration and the following discussion consume one class period.

Concept

The autonomic nervous system (ANS) consists of two sets of nerves that have reciprocal or mutually inhibitory effects. One, the sympathetic nervous system (SNS), has variously been called the "fright, fight, or flight" system, the arousal system, or the stress system. It mobilizes resources for emergency responses such as self-defense, and its effects include increases in heart rate, blood pressure, and respiration, among others. The other set of nerves is called the parasympathetic nervous system (PNS). It works to preserve bodily resources by slowing down respiration and heart rate and reducing blood pressure. The PNS restores the body to a resting state and resumes the body's maintenance functions.

Instructions

A day or more before the demonstration, ask the students to write a very brief description of a situation that had made them feel very angry or fearful. A one-sentence description of a recent event will serve if it permits them to reexperience the event. The descriptions should be brought to class.

To begin the demonstration, have the students pair off, and assign one of them to the subject role and one to the experimenter role. Show the experimenters how to take radial pulse rates on the inside of the wrist using just the fingertips to avoid a thumb echo, and give them a few minutes to practice. When all experimenters feel confident about taking the pulse, ask them to prepare a record sheet numbered 1 through 10, with two additional spaces marked 15 and 20. These correspond to the number of minutes that pass after beginning the exercise.

The first 3 minutes are called the base rate period, the next 3 are called the arousal period, and the next 4 are called the recovery period. The last two time periods of 5 minutes each constitute the final base rate period. During each minute, the experimenter measures the subject's pulse rate for the first 30 seconds only, but he or she should write down the rate after multiplying it by 2 to create an estimate of beats per minute (BPM). Explain before beginning that you will be examining the ANS effects on heart rate. The subjects

will attempt to arouse their SNS by writing a detailed essay on the event they chose earlier. Encourage the subjects to write freely, assuring them that you will not be collecting the essays, and ask them to focus the essay on exactly what happened, how it made them feel, and what they did about it. At the end of the 6th minute, tell students to stop writing; some subjects get very involved and will have to be reminded. When all have stopped writing, tell them to simply sit and relax for the next 4 minutes. The last two measures are taken 5 minutes and 10 minutes after the recovery period.

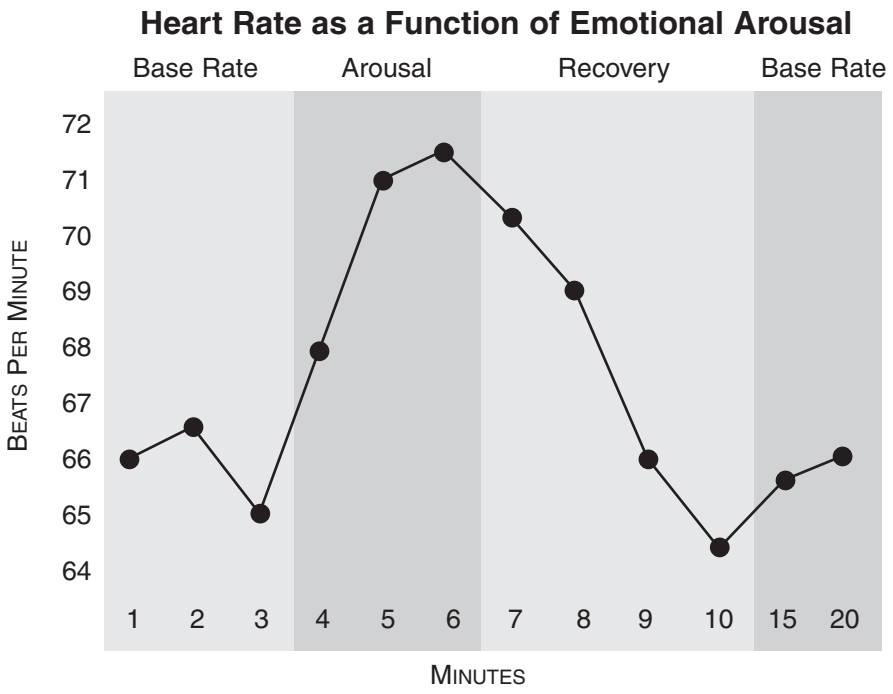
The procedure will take less time if you can coordinate everyone's activities. After explaining what the class will be doing, and after the students have prepared the record sheets, begin timing. Announce when 30 seconds have expired (e.g., "Time, please multiply the pulse rate by 2 and write it down"), when 30 seconds of the 2nd minute expire ("Time, please write down the pulse rate for the second period"), and so on. When the 4th minute begins, ask subjects to begin writing. At the end of the 6th minute, have the subjects stop. The procedure for the last 4 minutes is the same as for the first 3; for the 15th and 20th minutes, you may want to set an alarm to remind the experimenters to begin recording again for 30 seconds. Make sure that all the experimenters have written down the BPM.

Next, ask each pair of students to prepare a graph like the one shown at the end of this activity. The data I have plotted are the averages of a class of 25; your students will prepare individual data. Before finishing the exercise, assemble a graph based on class averages so that they will see results more closely approximating those theoretically expected.

Discussion

As the students examine their own graphs, I put data from a previous class on the board. I point out the drop in pulse rate during the first 3 minutes as evidence of the guinea pig effect, which is caused by the subjects' reaction to being measured. This effect always shows up. I next point out the relatively rapid rise in rate as the subjects began writing their essays. The class average is typically 4 to 6 BPM higher than the base rate, but some individuals will show rates more than 20 BPM higher. A discussion of such differences will reveal one or two subjects whose rate actually fell, an indication of an unusual response to fear or a failure to get involved with the writing task. The next period, recovery, shows a gradual decline in pulse rate as the PNS inhibits the SNS. You may note the PNS rebound, that is, the average heart rate may fall below the initial base rate as the system is returning to a resting state. Finally, the last base rate values should be very close to the values during the minute 3 (i.e., after the guinea pig effect), showing that the system has been restored to normalcy.

This activity is very straightforward. It has been extremely reliable for me, is sensitive to the relatively slight changes produced by writing the essay, and clearly illustrates the role of the ANS in emotional response. If you are interested in doing more with this exercise, several variations are available. For example, instead of letting the subjects return to the base rate, you can attempt to force a faster return by having them write a relaxing essay (e.g., a picnic, a day at the beach) at the beginning of the 7th minute. Or you can examine the physiological response to emotions other than fear and anger by asking some subjects to write about Christmas, others about a depressing event, and so on.



Suggested Reading

Levinthal, C. F. (1983). *The physiological approach to psychology* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

McFarland, R. A. (1981). *Physiological psychology*. Palo Alto, CA: Mayfield.

Adapted From

Makosky, V. P., Whittemore, L. G., & Rogers, A. M. (1987). *Activities handbook for the teaching of psychology (Vol. 2).* Washington, DC: American Psychological Association.

Activity 2.3

Step on the Gas

Jane Halonen and Cynthia Gray

Provide students with the following information and activities.

Concept

Despite the fact that there are many different types of stressors to which an organism can respond, the stress response itself follows a predictable pattern. Hans Selye (1976) called this pattern the general adaptation syndrome (GAS). Selye said that there are three phases of stress response. The first is the alarm reaction, in which the sympathetic nervous system is suddenly activated by the detection of the stressor. During the resistance phase, you cope with the stressor, and the sympathetic nervous system remains aroused to provide energy and protection against illness. The final stage, exhaustion, occurs when the body's energy is depleted. During this stage, the organism's resistance to illness is diminished, and energy levels are low.

Instructions

1. Using this framework, explain your own reaction to a significant stressor in your life. Make sure that you clearly identify each stage with your accompanying physical, emotional, and cognitive experiences.

   _____

   _____

   _____

2. Given your knowledge of this process, what might you do to minimize the negative effects of stress the next time you are in a stressful situation?

   _____

   _____

   _____

After completing this exercise, students should be able to:

- describe Selye's general adaptation syndrome,
- use the GAS to explain a significantly stressful event in their own lives, and
- speculate about how they might use their understanding of this process to minimize the negative effects of stress in future stressful situations.

Adapted From

Halonen, J., & Gray, C. (2001). *The critical thinking companion: For introductory psychology* (2nd ed). New York: Worth Publishers.

Lesson III. Psychological Responses to Stress

I. Emotional, Cognitive, and Behavioral Responses

Stress is associated with emotional, cognitive, and behavioral responses. Some responses do not affect functioning, while others can severely disrupt normal functioning.

A. Emotional symptoms of stress can include crying, nervousness, irritability, anger, sadness, anxiety, fear, feelings of dissatisfaction, feeling overwhelmed and powerless, apathetic, or empty.

B. Cognitive symptoms of stress can include memory problems, distractibility, obsessiveness, or problems in concentration.

C. Behavioral reactions to stress can include problems in relationships, alcohol and substance abuse, compulsive eating, teeth grinding, lowered sex drive, or uncommunicativeness.

II. Positive Aspects of Stress

Optimal arousal theory suggests that peak performance is related to amount of stress.

A. More stress can increase performance on simple tasks.

B. Too much stress tends to decrease performance on complex tasks.

III. Mediators of Stress

Responses to stress can be mediated by the following:

A. Adequacy of coping skills—Having more than one way of dealing with problems is useful.

B. Availability of social support—Friends can help buffer the effects of stress.

C. Intensity and duration of the stressor and history of previous stressors affect stress.

D. Individual beliefs and values affect stress.

Example: Locus of control

(a) Internal—A belief that a person has control over rewards and punishments in life

(b) External—A belief that luck, chance, and powerful people determine events

E. Gender (e.g., Bernstein, Penner, Clarke-Stewart, & Roy, 2003)—Males express anger and use avoidance; females use support networks.

F. Cultural differences affect stress.

IV. Cultural Differences

A. What might be perceived as stressful in one culture may be perceived as less stressful in another culture (e.g., failure in academic achievement, divorce), but many stressors are similar across cultures (threats to well-being, loss).

B. Cultural differences exist in the degree to which people of different cultures use different coping strategies, but all peoples essentially use strategies to try to eliminate the stressor, avoid it, or cope with it.

C. Cultural context can influence what is perceived as stressful and the coping strategies used.

1. *Individualistic culture*—This culture values sense of competition, personal freedom, individual achievement, working alone, confrontation, and so on. Priority is given to personal needs and individual success. This is typical of North American and Western Europe countries.
2. *Collectivist culture*—This culture values working in a group, group goals, and group achievement, kinship relationships, etc. Priority is given to group needs and group success. This is typical of Asian, African, and Central and South American countries.

D. It is important not to polarize the differences across cultures or to stereotype.

E. Cultural differences may appear in how people describe stressors (e.g., a person from an individualistic culture may explain a stressor in an individualistic way, while a person from a collectivist culture may explain a stressor in a collectivistic way).

F. Cultural differences in stress and coping with stress may be a factor in the relationship between culture and health that research has demonstrated, e.g., heart disease is highest in African Americans and lowest in Asians/Pacific Islanders.

Activity 3

The Game of Life

Notes

Activity 3

The Game of Life

Jane Halonen and Cynthia Gray

Provide students with the following information and activities.

Concept

At some point during your educational career, you have probably been presented with one of a variety of fictional dilemmas asking you to make choices based on your value system. They generally follow the format of "If you can only save 10 of the following 50 people from some disaster, who would you save and why?" This activity is similar to those others you may have seen. You must select a given number of items from the following lists of stressors, with the intention of maximizing your health and resiliency. Once you have made your selections, explain why you chose the items you did, and what impact you would expect them to have on your health and happiness. Compare your answers with those of your classmates and discuss the differences in personality, event appraisal, and personal habits that led to your decisions.

Instructions

Category I (Choose 1)

Living in a country experiencing war

Living through a major earthquake

Losing your home and possessions because of a fire

Living near a nuclear disaster site

Having a close relative die in an accident

Category II (choose 3)

Death of a close relative

Getting married

Losing a job

Having triplets

Living 2,000 miles from family

Moving to a new city

Developing a serious illness

Buying an expensive house

Getting a promotion at work

Having a 2-hour heavy-traffic commute every day

Getting divorced

Category III (choose 5)

Getting stuck in construction traffic and being 3 hours late getting home

Waiting in line at the post office for 1 hour to mail in your taxes

Having two exams the day before your sister's wedding

Locking your keys in the car

Forgetting your notes for a presentation

Getting a speeding ticket

Losing your keys on the morning of a big job interview

Having a fight with your roommate

Bouncing a check

Having to find a new apartment

Discussion

Take a look at the items you selected. What effect would you expect them to have on your health and well-being?

_____

_____

_____

Would your health be affected differently if these things happened at different points in your life? How might you respond differently if the event you chose from Category I happened when you were 8 years old instead of as an adult?

_____

_____

_____

After completing this exercise, students should be able to:

- discuss the effects that various stressors might have on their health;
- identify the ways in which their own personality, event attributions, and personal habits affect the ways in which they respond to various stressors; and
- speculate about how catastrophic stressors affect individuals differently based on their stage of development.

Adapted From

Halonen, J., & Gray, C. (2001). *The critical thinking companion: For introductory psychology* (2nd ed). New York: Worth Publishers.

Lesson IV. Strategies To Deal With Stress and To Promote Health

I. Cognitive Strategies

A. Appraisal/reappraisal

1. *Appraisal*—This is evaluating a situation.
2. *Reappraisal*—This is evaluating for a second time and assessing risks, costs, and benefits for different coping strategies; reappraisal may affect the response.

B. Ignore

C. Problem-Solve

1. This is defined as an attempt to develop constructive schemas.
2. A person should consider the threat, harm, or challenge to the individual or group.
3. Problem-solving involves the following steps:
   - *(a) Identify the problem.*
   - *(b) Explore possible strategies.*
   - *(c) Plan and take actions.*

D. Cognitive restructuring—Examine underlying assumptions and automatic thoughts associated with the problem, use techniques such as "reframing" to view the problem as more of a challenge than threat.

II. Emotional Strategies

A. Cope with difficult emotions and apply self-regulation.

B. Obtain emotional support and social support, and have close, loving relationships (Erikson).

C. Use imagery that generates pleasant emotions.

III. Behavioral Strategies

A. Time management—This is planning for effective and efficient use of time.

B. Behavior modification—This is the application of the principles of classical and operant conditioning to make behavioral changes that reduce stress and enhance health.

C. Relaxation training—This is progressive muscle and/or imagery relaxation coupled with deep breathing to directly modify the stress response.

D. Biofeedback—This is a person's using information about his or her biological state in order to learn how to control it. It often involves electronically recording information about changes in the person's physiological state (e.g., muscle tension), providing informational feedback to the person, and the person's using that information to learn ways to physically control that function (e.g., relax).

E. Meditation—Meditation techniques are designed to create an altered state of consciousness characterized by inner peace and tranquility.

F. Avoiding the stressor

IV. Physical Strategies

A. Aerobic exercise—This is sustained exercise that can increase cardiovascular and lung capacity and can help alleviate depression and anxiety.

B. Diet and nutrition—This is eating balanced meals; making healthy choices.

In general, adaptive strategies include reappraising the threat, goal setting, prioritizing, and reality testing. Maladaptive strategies include denial, catastrophizing, and wishful thinking. But no one strategy is good for everything, and some can be good in some situations and bad in others (for example, denial, confrontation, avoidance).

V. Whole Person Approach to Health Promotion

A. The "whole person" approach views a person's health as interconnected biological, psychological, and social components. Viewing these components as integrally related to our total well-being and health, this approach emphasizes health awareness, health promotion, and disease prevention.

B. Lifestyle—The adoption of a healthy lifestyle such as controlling eating, smoking, exercise, and problem solving can have a direct impact on an individual's perceived stress and stress level.

Activity 4.1

Coping With Stress

Activity 4.2

An Introduction to Meditation

Handout Master

"Coping With Stress"

Notes

Notes

Activity 4.1

Coping With Stress

Concept

No one can escape the ongoing stressors or challenges of life. However, how we approach these situations can add or subtract to our stress level. Richard Lazarus has observed a difference in problem-focused coping and emotional-focused coping. Problem-focused coping puts emphasis on solving and understanding the problem. We may try to direct it outward to change the situation or the behaviors of others. We may try to direct it inward by changing our attitudes or developing new skills. Emotion-focused coping involves reducing our distress or how we feel. We might seek physical exercise, relaxation, communication, social support, etc. We must be aware of possible unhealthy coping strategies in which we try to immediately reduce the emotional discomfort by avoidance of the situation or by substance abuse, etc. This often compounds or postpones the true issue.

After the students compute their scores, you may wish to discuss the above approaches along with the strategies mentioned on the survey in terms of coping with stress. Some students may wish to add or subtract to the strategies.

Materials

Handout Master “Coping With Stress”

Directions for scoring the handout, as follows: Holahan and Moos identified 32 coping strategies; some are problem-focused (“tried to find out more about the situation”), and some are emotion-focused (“exercised more”). After they finish the scale, you might wish to ask students to indicate which strategies they believe are the most helpful. Holahan and Moos defined their strategies as active cognitive (active efforts to construct thoughts to help cope with the problems), active behavioral (efforts to change the situation), and avoidance (trying to keep the problem out of awareness).

The score for each set of coping strategies is the sum of the scores for the items indicative of that strategy. Active-cognitive is assessed by items 1, 6, 7, 10, 11, 15, 20, 21, 23, 26, and 29. Active behavioral is measured by items 2, 3, 5, 8, 12, 13, 17, 18, 22, 25, 28, 31 and 32. Avoidance is indicated by items 4, 9, 14, 16, 19, 24, 27, and 30. Students can compute their means (average) for each subscale to determine what strategy they tend to use more. Researchers suggest that active strategies are usually more effective than avoidant strategies, and problem-focused strategies are generally more effective than those that attempt to deal only with emotional distress.

Instructions

Give a presentation on how stressors are an everyday part of our life. How we handle or cope with these stressors may empower us into positive action or limit our physical and psychological well-being. Have the students complete the handout, “Coping With Stress.” Score the survey and allow for class discussion.

Adapted From

Bolt, M. (2004). *Instructor’s resources to accompany David G. Myers Psychology.* New York: Worth Publishers.

Handout Master

Coping With Stress

Reflect on how you have approached your various challenges/stressors in the past year. Using the scale below, indicate how often you used each of the following strategies to deal with those challenges/stressors.

0 = Not at all 1 = A little 2 = Occasionally 3 = Fairly often

_____ 1. Took things a day at a time.

_____ 2. Got away from things for a while.

_____ 3. Tried to find out more about the situation.

_____ 4. Tried to reduce tension by drinking more.

_____ 5. Talked with a professional person (e.g., doctor, lawyer, clergy).

_____ 6. Made a promise to myself that things would be different next time.

_____ 7. Prepared for the worst.

_____ 8. Let my feelings out somehow.

_____ 9. Took it out on other people when I felt angry or depressed.

_____ 10. Prayed for guidance and/or strength.

_____ 11. Accepted it; nothing could be done.

_____ 12. Talked with spouse or another relative about the problem.

_____ 13. Talked with a friend about the problem.

_____ 14. Tried to reduce tension by taking more tranquilizing drugs.

_____ 15. Told myself things that helped me feel better.

_____ 16. Kept my feelings to myself.

_____ 17. Bargained or compromised to get something positive from the situation.

_____ 18. Tried to reduce tension by exercising more.

_____ 19. Tried to reduce tension by smoking more.

_____ 20. Tried to see the positive side of the situation.

_____ 21. Considered several alternatives for handling the problem.

_____ 22. Made a plan of action and followed it.

_____ 23. Went over the situation in my mind to try to understand it.

_____ 24. Tried to reduce tension by eating more.

_____ 25. Got busy with other things to keep my mind off the problem.

_____ 26. Drew on my past experiences.

_____ 27. Avoided being with people in general.

_____ 28. I knew what had to be done and tried harder to make things work.

_____ 29. Tried to step back from the situation and be more objective.

_____ 30. Refused to believe that it happened.

_____ 31. Sought help from persons or groups with similar experiences.

_____ 32. Tried not to act too hastily or follow my first hunch.

Adapted From

Holahan, C., & Moos, R. (1987). Personal and contextual determinants of coping strategies. *Journal of Personality and Social Psychology, 52,* 946-955.

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Activity 4.2

An Introduction to Meditation

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This activity can be used with any size class if the classroom can be made free from distractions for 10 to 15 minutes. A clock or timepiece with a second hand is needed. No advance preparation is required. The activity can be elaborated by having the class examine the process and results in various ways, for example, by writing narrative descriptions or analyzing the physiological changes with some simple descriptive statistics.

Concept

In any introductory psychology course, the lecture on altered states of consciousness not only creates a great deal of interest but also a significant degree of misunderstanding. Students have heard about meditation and relaxation from numerous popular sources and thus may have formulated some preconceived notions about the topic. This exercise is designed to help students develop a more accurate understanding of altered states of consciousness and of meditation in particular.

Materials

- Something to keep time with (a large classroom laboratory clock with a second hand is preferable, although a wristwatch with a second hand could be used)
- Paper and pencil

If possible, you should do the activity in a room free from distractions.

Instructions

First, you should explain basic meditation and relaxation strategies to the students. A clear understanding of the purposes of meditation is necessary to dispel myths, misconceptions, or fears that they may have. A few words about the potential benefits of these practices would also be helpful. Give students the option to simply sit quietly with their eyes closed if they do not wish to participate in the activity. After you have answered their questions, begin the exercise by asking students to write a brief paragraph on what they are thinking and how they feel. Then have them record their pulse and respiration rate per minute. Explain that you will be providing a series of simple instructions that they must follow carefully. Turn off the room lights and make sure the room is free from distractions for the next 10 to 15 minutes. Instruct the students to sit erect in a comfortable posture, with their hands on the desk or lap, legs uncrossed, and feet on the ground. After students are in a relaxed position, ask them to take at least 30 seconds (if not longer) to slowly close their eyes.

Encourage students to focus on whatever thoughts come into their minds, but to begin letting go of these thoughts; they should "entertain these thoughts briefly." At this point, tell students to clear their minds and to focus on their breathing. Say the following out loud: "Each breath should come from your abdomen; if possible, breathe through your nostrils. Inhale, let the air in, hold it, let it out slowly." As the students begin to breathe rhythmically, ask them to repeat the word "one" to themselves in an effortless and passive manner. Once they have initiated this pattern, encourage them to briefly entertain new thoughts or ideas that come into their minds, but to always return to breathing and repeating the word "one." After 10 minutes of this exercise, ask them to stop repeating the word "one" and to focus only on their breathing. After approximately 1 minute of breathing only, tell the students to start focusing on bodily sensations as well as the sounds of the room around them. Give the students about 30 to 60 seconds of this reorientation period before asking them to slowly open their eyes and sit quietly for a moment. Then ask them to take their pulse and respiration rates again and to write a brief paragraph about how they feel now.

Discussion

You should elicit general comments, positive and negative, about the exercise from the class. Next, have the students chart group pulse and respiration data to determine whether any physiological effects were noted. Descriptive statistics, including a distribution graph, could be the basis of student discussion. Emphasize the limitations not only of the meditation experience (e.g., the classroom setting), but also of the limited sophistication of the dependent variables. More detailed meditation instructions can be found in either Benson (1975) or Shapiro (1980).

Suggested Reading

Naranjo, C., & Ornstein, R. (1971). *On the psychology of meditation.* New York: Viking.

Shapiro, D. H., & Walsh, R. N. (1984). *Meditation: Classical and contemporary perspectives.* New York: Aldine.

References

Benson, H. (1975). *The relaxation response.* New York: William Morrow.

Shapiro, D. H. (1980). *Meditation: Self-regulation strategy and altered states of consciousness.* New York: Aldine.

Adapted From

Makosky, V. P., Whittemore, L. G., & Rogers, A. M. (1987). *Activities handbook for the teaching of psychology* (Vol. 2). Washington, DC: American Psychological Association.

Lesson V. Resilience and Well-Being

I. Resilience

Resilience is the ability to adapt well in the face of challenging life experiences, such as trauma, tragedy, or significant stress.

A. Resilience can be learned; successful resilience skills vary from person to person (what works for one person might not work for another).

B. Resilience skills include developing realistic goals, taking care of one's self both physically and mentally, keeping things in perspective, and staying flexible. Having supportive relationships is an important component to resilience.

C. Resilient individuals (Alvord & Grados, 2005) do the following:

1. *They possess a realistic, positive sense of self.*
2. *They have self-control.*
3. *They are proactive when faced with challenges.*
4. *They are realistic.*
5. *They use internal and external resources when challenged.*

D. Individual characteristics such as good problem-solving skills and a sense of optimism, a stable and supportive family environment, and other variables such as effective schools and other forms of social support all contribute to resilience (Tedeschi & Kilmer, 2005).

E. Building resilience is more difficult for people with specific psychological disorders, such as depression (Newman, 2005). Resilience building should be integrated into the person's treatment (e.g., for depression).

F. Building resilience can reduce stress and promote health.

II. Realizing and Creating Well-Being in Life for Individuals, Communities, and Societies

A. Well-being—This is the pervasive sense that life has been and is good. It is an ongoing perception that this period in a person's life, or even life as a whole, is fulfilling, meaningful, and pleasant (Myers, 2005).

B. Awareness and support of multiple abilities of all people.

C. Encouraging individuals and groups to develop a deeper sense of purpose, meaning, and satisfaction in life.

D. Self efficacy—Personal beliefs regarding capability of exercising control over events in our lives (Bandura, 1997).

III. Concepts To Consider for Experiencing Well-Being and a Positive Lifestyle

A. Optimism—Optimism is a mood or attitude associated with an expectation about the future that is regarded as desirable. How a person explains bad events is referred to as explanatory style; it can be either positive or negative.

B. Flow—Flow is concentration and attention given to pursue or solve a consciously chosen meaningful personal goal.

C. Subjective well-being—This is a person's judgment of his or her life as a whole (pleasant vs. unpleasant).

D. Happiness—Happiness is a high ratio of positive to negative feelings or a sense of satisfaction with life.

E. Hope—This is a person's expectations that a goal could be achieved.

F. Cultural differences—Different concerns for people of different cultures are correlated with well-being and happiness.

Notes

Notes

Critical Thinking Questions

1. There are inescapable stressors in everyday life. Different types and levels of stressors may influence the stress response, which may in turn affect a person's emotional state and physical health.

Define the following and give an example of each:

A. Stress

_____

_____

_____

Example

_____

_____

_____

B. Stressor

_____

_____

_____

Example

_____

_____

_____

2. There are four types of situations that can cause psychological conflict.

Define psychological conflict and the four conflict situations. Give an example of each of the four possible conflict situations.

A. Psychological conflict

_____

_____

_____

B. Approach-Approach

Example

C. Avoidance-Avoidance

Example

D. Approach-Avoidance

Example

E. Double Approach-Avoidance

Example

3. What are the negative effects of chronic stress? Give an example of chronic stress and explain how it might affect how an individual appraises new events.

4. What is the relationship between stress and the immune system?

5. For each of the scenarios below involving stress, the student is to answer the following:

   What possible physiological effects might the stressor cause?

   What possible emotional effects might the stressor cause?

   What possible cognitive effects might the stressor cause?

   What possible behavioral effects might the stressor cause?

   A. You have a part time job that you hate, but the job pays well and you need the money.

   B. Your schedule is such that you have a major exam tomorrow, a school competition this afternoon, and your friends want you to go to a concert with them tonight.

6. Describe the different phases of the physiological response to stress. What is the role of the hypothalamus in the stress response? Describe the adrenocortical response and the adrenomedullary response during stress.

7. What are the three phases of Selye's general adaptation syndrome (GAS) response? Use the GAS model to explain the effects of exposure to long-term stress, such as living in a country stricken by famine and war.

8. Consider and explain the connection between the mind and physical illness to speculate on the following questions:

   A. Can people think themselves into being physically ill?

   _____

   _____

   _____

   B. How much of a person's physical illness originates from the illness itself and how much comes from how they perceive their illness?

   _____

   _____

   _____

   C. What effect would stress have on an individual with HIV?

   _____

   _____

   _____

9. List and describe four mediators of stress. How might Tom, a 15-year-old male with few close friends and an external locus of control, and Lisa, a 16-year-old female with a large network of friends and an internal locus of control, react to the same stressor differently?

_____

_____

_____

10. The United States is categorized as an individualistic culture, while Japan is categorized as a collectivist culture. Using what you know about these two cultural categories, describe the similarities and differences in the reaction to losing a close friend between an American teenager and a Japanese teenager.

_____

_____

_____

11. How can problem-solving help eliminate stress? Give examples of cognitive, emotional, behavioral, and physical strategies to cope with stress.

_____

_____

_____

12. How do you deal with stress? What could you do to make your response to stress more adaptive to a healthy lifestyle?

13. Explain how creating well-being in individuals, communities, and societies may have a revolutionary impact on a society's overall health and lifestyle.

14. What is the relationship between stress and health? How can stress negatively affect a person's health? Give one example. What can a person do to optimize well-being and health?

15. Define resilience. Imagine you are asked to speak to fifth graders about resilience. What would you tell them?

Resources

American Psychologist. (2000). *Special Issue on Happiness, Excellence, and Optimal Human Functioning, 55.*

Hafen, B. Q., Karren, K. J., Frandsen, K. J., & Smith, N. L. (1996). *Mind/body health: The effects of attitudes, emotions, and relationships.* Needham Heights, MA: Simon & Schuster.

Nelson, D. L., & Burke, R. J. (Eds.) (2002). *Gender, work stress, and health.* American Psychological Association: Washington, DC.

Shorey, H. S., & Snyder, C. R. (2002). Hope in the classroom: The role of positive psychology in academic achievement and psychology curricula. *Psychology Teacher Network, 12, 1.*

Straub, R. O. (2002). *Health psychology.* New York: Worth Publishers.

Taylor, S. E. (2002). *Health psychology.* (5th Ed). New York: McGraw-Hill.

Video Resources

Cogswell, M. (1992). *The world of abnormal psychology: The nature of stress.* [Video]. Available from The Annenberg/CPB Multimedia Collection, P.O. Box 2345 Burlington, VT 05407-2345 or call 1-800-LEARNER.

Sameth, J. (1984). *The brain: Emotions, stress, and health.* [Video]. Available from The Annenberg/CPB Multimedia Collection, P.O. Box 2345 Burlington, VT 05407-2345 or call 1-800-LEARNER.

Zimbardo, P. (Host). (2001). *Discovering psychology: Health, mind and behavior* (2nd ed.). [Video]. Available from The Annenberg/CPB Multimedia Collection, P.O. Box 2345 Burlington, VT 05407-2345 or call 1-800-LEARNER.

Web Resources

Stress

The American Psychological Association
http://www.apa.org
http://www.apa.org/topics/topicstress.html

The American Institute of Stress
http://www.stress.org/

National Center for Post Traumatic Stress Disorder
http://www.ncptsd.org/

The International Society for Traumatic Stress Studies
http://www.istss.org/

U.S. Department of Justice: Handbook for Coping After Terrorism
http://www.ojp.usdoj.gov/ovc/publications/infores/cat_hndbk/welcome.html

Health Promotion

American Psychological Association (APA) Help Center.
Good information on stress and stress management. Look through the site map for articles to get an overview of the Web site.
http://www.apahelpcenter.org/

American Heart Association
http://www.americanheart.org

American Public Health Association: Selected Internet Resources for Health Education and Health Promotion
http://www.apha.org/public_health/hphe.htm

Centre for Health Promotion: University of Toronto
lhttp://www.utoronto.ca/chp/

Connect for Kids
http://www.connectforkids.org/usr_doc/CopingWithGrief.htm

Healthfinder (r)
http://www.healthfinder.gov

Healthy People 2010: Be a Healthy Person
http://www.health.gov/healthypeople/BeHealthy/

Iowa Department of Public Health:
Division of Health Promotion and Chronic Disease Prevention
http://www.idph.state.ia.us/hpcdp/default.asp

National Center for Chronic Disease Prevention and Health Promotion
http://www.cdc.gov/nccdphp/

The National Mental Health Association
http://www.nmha.org/

Office of Disease Prevention and Health Promotion
http://odphp.osophs.dhhs.gov/

Positive Psychology Site
http://www.positivepsychology.net/

World Health Organization: Health Promotion
http://www.who.int/healthpromotion/en/

Resilience

The Road to Resilience
lhttp://www.apahelpcenter.org/featuredtopics/feature.php?id=6

Resilience Guide for Parents and Teachers
http://www.apahelpcenter.org/featuredtopics/feature.php?id=39

Resilience for Teens Brochure
http://www.apahelpcenter.org/featuredtopics/feature.php?id=40

Resilience in a Time of War: Tips for Parent and Teachers of Teens
http://www.apahelpcenter.org/featuredtopics/feature.php?id=57

References

Alvord, M. K., & Grados, J. J. (2005). Enhancing resilience in children: A proactive approach. *Professional Psychology: Research and Practice, 36,* 3, 238-245.

Bandura, A. (1997). *Self efficacy: The exercise of control.* New York: W. H. Freeman & Company.

Bernstein, D. A., Penner, L. A., Clarke-Steward, A., & Roy, E. J. (2003). *Psychology* (6th ed.). New York: Houghton, Mifflin.

Bolt, M. (2004). *Instructor's resources.* New York: Worth Publishers.

Friedman, M., & Rosenman, R. (1959). Association of specific overt behavior pattern with blood and cardiovascular findings. *Journal of the American Medical Association, 169,* 1286-1296.

Friedman, M., & Rosenman, R. (1974). *Type A behavior and your heart.* New York: Knopf.

Halonen, J., & Gray, C. (2001). *The critical thinking companion for introductory psychology* (2nd ed.). New York: Worth.

LaVoie, A. L. (1987). The autonomic nervous system. In V. P. Makosky, L. G. Whittemore, & A. M. Rogers (Eds.), *Activities handbook for the teaching of psychology* (Vol. 2, pp. 286-288). Washington, DC: American Psychological Association.

Martin, M. S. (1990). Biofeedback on a budget. In V. P. Makosky, C. C. Sileo, & L. G. Whittemore (Eds.), *Activities handbook for the teaching of psychology* (Vol. 3, p. 243). Washington, DC: American Psychological Association.

Myers, D. G. (2005). *Psychology* (7th ed.). New York: Worth.

Newman, R. (2005). APA's resilience initiative. *Professional Psychology: Research and Practice, 36,* 3, 227-229.

Puente, A. E. (1987). An introduction to meditation. In In V. P. Makosky, L. G. Whittemore, & A. M. Rogers (Eds.), *Activities handbook for the teaching of psychology* (Vol. 2, pp. 284-285). Washington, DC: American Psychological Association.

Tedeschi, R. G., & Kilmer, R. P. (2005). Assessing strengths, resilience, and growth to guide clinical interventions. *Professional Psychology: Research and Practice, 36,* 3, 230-237.

Tubesing, N. L., & Tubesing D. A. (1983). *Structured exercises in stress management: A whole person handbook for trainers, educators and group leaders* (Vol. 1). Duluth: Whole Person Press.